WHAT IS CLAIMED IS:

1. A signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal;

a speech encoder having a plurality of different coding algorithm, encoding the suppressed speech signal by using one of said different coding algorithm; and

wherein said noise suppressor selects one noise suppression characteristic in accordance with the used coding algorithm at the speech encoder.

2. A signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal;

a speech encoder having a plurality of different coding rates, encoding the suppressed speech signal by using one of said different coding rates; and

wherein said noise suppressor selects one noise suppression characteristic in accordance with the used coding rate at the speech encoder.

3. The signal processing apparatus according to claim 2, wherein the noise suppressor comprising a frequency divider dividing the speech signal into several speech signals, each of the speech signals having a different frequency band, said noise suppressor only suppressing background noise contained

in the speech signal having a predetermined frequency band if the speech encoder selects a predetermined coding rate for encoding the speech signal.

4. The signal processing apparatus according to claim 2, wherein the noise suppressor comprising a frequency divider dividing the speech signal into several speech signals, each of the speech signals having a different frequency band, said noise suppressor stops suppressing background noise contained in the speech signal having a predetermined frequency band if the speech encoder selects a predetermined coding rate for encoding the speech signal.

5. The signal processing apparatus according to claim 2, wherein the noise suppressor stops suppressing background noise contained in the speech signal if the speech encoder selects a predetermined coding rate for encoding the speech signal.

6. The signal processing apparatus according to claim 1, wherein the noise suppressor comprising a parameter setting means for setting a parameter so as to select an optimal noise suppression characteristic, sand parameters varies the noise suppression characteristics.

7. The signal processing apparatus according to claim 1, wherein said parameters are set in accordance with the used coding algorithm at the speech encoder.

8. The signal processing apparatus according to

claim 2, wherein the noise suppressor comprising a parameter setting means for setting a parameter so as to select an optimal noise suppression characteristic, sand parameters varies the noise suppression characteristics.

9. The signal processing apparatus according to claim 2, wherein said parameters are set in accordance with the used coding algorithm at the speech encoder.

10. A signal processing apparatus comprising:

a speech decoder having a plurality of different decoding algorithm, decoding the encoded speech signal by using one of said different decoding algorithm;

a noise suppressor having a plurality of different noise suppression characteristics, suppressing noise component contained in the decoded speech signal; and

wherein said noise suppressor selects one noise suppression characteristics in accordance with the used decoding algorithm at the speech encoder.

11. A signal processing apparatus comprising:

a speech decoder having a plurality of different decoding rates, decoding the encoded speech signal by using one of said different coding rates;

a noise suppressor having a plurality of different noise suppression characteristics, suppressing noise component contained in the decoded speech signal; and

wherein said noise suppressor selects one noise suppression characteristic in accordance with the used

rate at the speech encoder.

12. The signal processing apparatus according to claim 11, wherein the noise suppressor only suppressing the noise component contained in the decoded signal having a predetermined frequency band if the speech decoder selects a predetermined rate for decoding the encoded speech signal.

13. The signal processing apparatus according to claim 11, wherein the noise suppressor stops suppressing the noise component contained in the decoded speech signal having a predetermined frequency band if the speech decoder selects a predetermined rate for decoding the encoded speech signal.

14. The signal processing apparatus according to claim 11, wherein the noise suppressor stops suppressing background noise contained in the decoded speech signal if the speech decoder selects a predetermined ratio for decoding the encoded speech signal.

15. The signal processing apparatus according to claim 10, wherein the noise suppressor comprising a parameter setting means for setting a parameter so as to select an optimal noise suppression characteristic, said parameters varies the noise suppression characteristics.

16. The signal processing apparatus according to claim 10, wherein said parameter is set in accordance

with the used coding algorithm at the speech encoder.

17. The signal processing apparatus according to claim 11, wherein the noise suppressor comprising a parameter setting means for setting a parameter so as to select an optimal noise suppression characteristic, said parameters varies the noise suppression characteristics.

18. The signal processing apparatus according to claim 11, wherein said parameter is set in accordance with the used rate at the speech encoder.

19. A signal processing apparatus for use in a device in which a hands-free function is selectively usable, the apparatus comprising:

a noise suppressor having at least two different noise suppression characteristics, suppressing background noise contained in a speech signal; and said noise suppressor having a switch which selects a suitable suppression characteristic from the different noise suppression characteristics in accordance with the use of the hands-free function.

20. The signal processing apparatus according to claim 19, wherein the noise suppressor comprising a parameter setting means for setting a parameter so as to select an optimal noise suppression characteristic, said parameters varies the noise suppression characteristics.

21. The signal processing apparatus according to

claim 20, wherein said parameter is set in accordance with the use of the hands-free function.

22. A mobile radio communication terminal having a signal processing apparatus, said signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal;

a speech encoder having a plurality of different coding algorithm, encoding the suppressed speech signal by using one of said different coding algorithm; and

wherein said noise suppressor selects one noise suppression characteristics in accordance with the used coding algorithm at the speech encoder.

23. A mobile radio communication terminal having a signal processing apparatus, said signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal;

a speech encoder having a plurality of different coding rates, encoding the suppressed speech signal by using one of said different coding rates; and

wherein said noise suppressor selects one noise suppression characteristics in accordance with the used coding rate at the speech encoder.

24. A signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal, where the number of said noise suppression characteristics is

5   Q (Q: a positive integer);

a speech encoder having a plurality of different coding algorithm, encoding the suppressed speech signal by using one of said different coding algorithm, where the number of said coding algorithm is P (P: a positive

10   integer); and

wherein said noise suppressor selects one noise suppression characteristic in accordance with the used coding algorithm at the speech encoder, the following relationship is established:

15     $P \geqq Q > 1$.

25. A signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal, where

20   the number of said noise suppression characteristics is Q (Q: a positive integer);

a speech encoder having a plurality of different coding rates, encoding the suppressed speech signal by using one of said different coding rates, where the

25   number of said coding rates is R (R: a positive integer); and

wherein said noise suppressor selects one noise

suppression characteristic in accordance with the used coding rate at the speech encoder, the following relationship is established:

$$R \geqq Q > 1.$$

26. A signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal, said noise suppression characteristics is varied in accordance with a parameter set by a parameter setting means;

a speech encoder having a plurality of different coding algorithm, encoding the suppressed speech signal by using one of said different coding algorithm, where the number of said coding algorithm is P (P: a positive integer); and

wherein said parameter setting means set a suitable parameter so as to select an optimal noise suppression characteristic in accordance with the used coding algorithm at the speech encoder, where the number of said parameter is S (S: a positive integer), the following relationship is established:

$$R \geqq S > 1.$$

27. A signal processing apparatus comprising:

a noise suppressor having a plurality of different noise suppression characteristics, suppressing background noise contained in a speech signal, said

noise suppression characteristics is varied in
accordance with a parameter set by a parameter setting
means;

5   a speech encoder having a plurality of different
coding rates, encoding the suppressed speech signal by
using one of said different coding rates, where the
number of said coding rates is R (R: a positive
integer); and

      wherein said parameter setting means set a
10   suitable parameter so as to select an optimal noise
suppression characteristic in accordance with the used
coding rate at the speech encoder, where the number of
said parameter is S (S: a positive integer), the
following relationship is established:

15      $R \geqq S > 1.$